

Name: Wenwen Zhu

Degree: MSc Interactive Digital Media

Title: The factors that influence the visual quality by using image matting technology in films and TV series and how these factors work in Chinese TV series

Supervisor: John Dingliana

Year: 2018

Abstract

This paper is intended to explore the use of image matting technology in film, focusing particularly on the Chinese film and TV industry. This paper concludes some factors that influence the visual quality of compositing scenes, which are the unification of the perspective and lens, the choice of green screen or blue screen, the unification of colour, the appearance of edges in the foreground subject and the unification of movement. Also, this paper points out the circumstance of Chinese film and television work and explains why image matting technology needs to be developed in China. Furthermore, two case studies are taken in this paper: “General and I” and “Nirvana in Fire”, to give people a bright idea about how to produce synthetic scenes that look like being shot together with only one lens during the process of making a film or television series based on those concluded factors. In addition, This paper seeks to provide readers of the importance of these factors in the visual quality of synthetic scenes and know how to use these factors properly. Finally, the paper will provide a discussion of possible future directions that image matting technology might take.

Keywords: Image matting technology, green or blue screen, colour correction, Shadow, Bayesian approach, High-speed photography, motion control system